

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: iO LED

Report Number: P977167

Luminaire Tested: GRZ-10L-940-17x75-X-UNV-STD-1F

Issue Date: 3/21/2025

Test Information

Test Method: LM-79-2019
Report Number: P977167
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-147-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 3/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: iO LED
Catalog Number: GRZ-10L-940-17x75-X-UNV-STD-1F
Description: iO COVIO LED GRAZER WITH 17X75 DEGREE OPTIC.
1000 LUMENS PER FOOT, 1 FOOT FIXTURE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

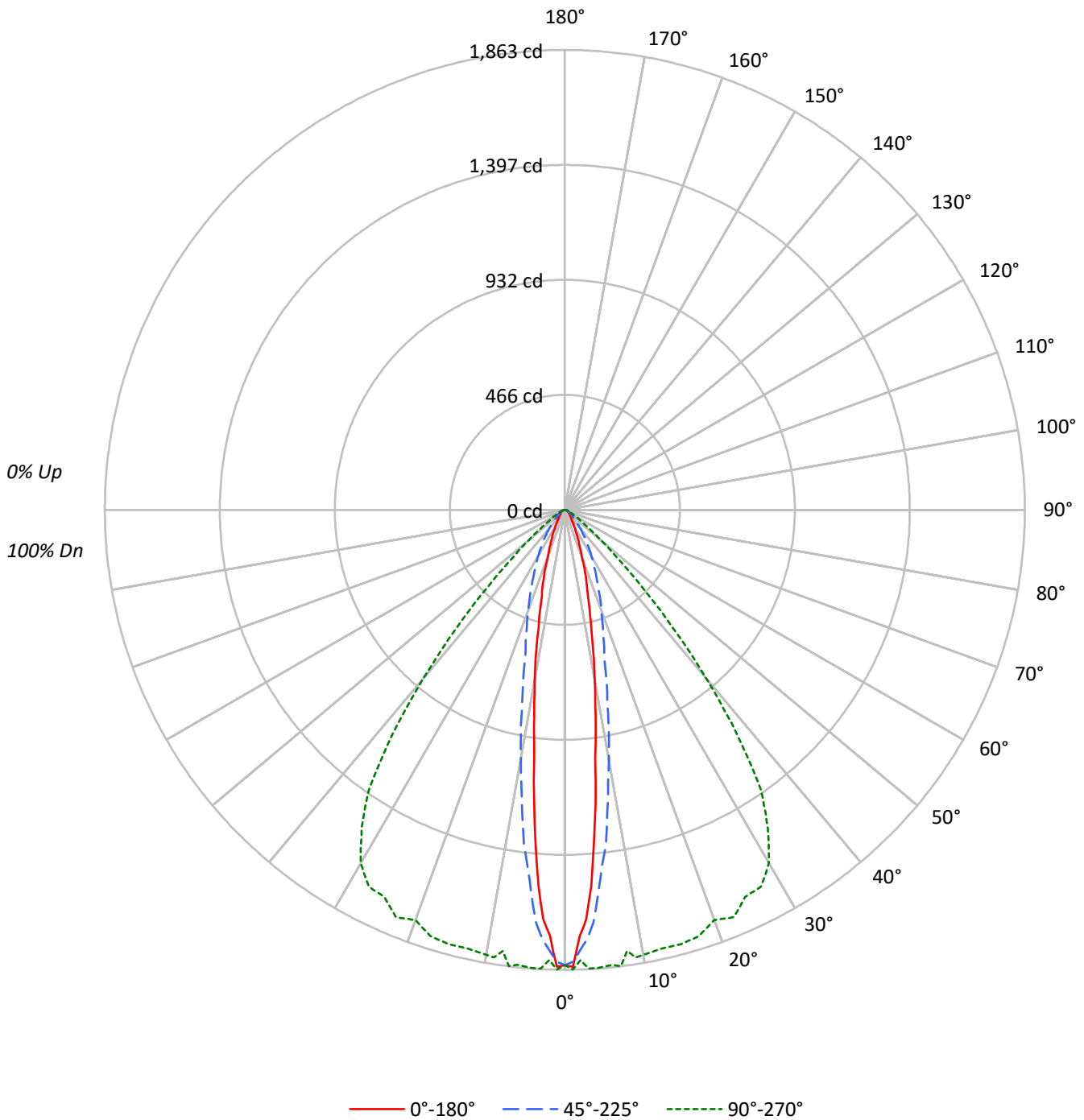
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 998.1 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 0.27 / 1.27 / 0.47
Luminous Opening: Rectangular (W 1' x L: 0.17' x H: 0')
CIE Type: Direct

Input Watts (W): 10
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: GRZ-10L-940-17x75-X-UNV-STD-1F

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92		92
2	107	101	97	93	105	100	96	92	96	93	90	93	91	88	91	88	87	85		85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78		78
4	95	87	81	77	93	86	81	76	84	79	75	82	78	74	80	76	74	72		72
5	90	81	75	70	89	80	75	70	79	73	70	77	72	69	75	71	68	67		67
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62		62
7	81	71	65	61	80	71	65	60	69	64	60	68	63	60	67	63	59	58		58
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54		54
9	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	52	51		51
10	70	60	54	50	69	60	54	50	59	53	50	58	53	50	57	53	49	48		48

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	119118	119118	119118
5°	87793	101025	120402
10°	46017	67291	119998
15°	24130	41307	121735
20°	13904	29684	121505
25°	8701	21556	123251
30°	5436	16041	123279
35°	3737	11779	109204
40°	3077	8296	74831
45°	2667	5827	40114
50°	2381	4210	19040
55°	2252	3491	9233
60°	2351	3061	5412
65°	2231	2506	3622
70°	2058	2058	2757
75°	1822	1822	2271
80°	1339	1339	1339
85°	1334	1334	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 40114 cd/sqm



TEST NUMBER: P977167

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.3	13.7
10°-20°	237.2	23.8
20°-30°	246.6	24.7
30°-40°	205.9	20.6
40°-50°	101.6	10.2
50°-60°	41.2	4.1
60°-70°	19.4	1.9
70°-80°	8.5	0.9
80°-90°	1.4	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	620.1	62.1
0°-40°	826.0	82.8
0°-60°	968.8	97.1
0°-90°	998.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	998.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1844	1844	1844	1844	1844	
5°	1354	1432	1558	1773	1857	106
15°	361	416	618	1214	1821	106
25°	122	151	302	749	1730	57
35°	47	66	149	416	1385	31
45°	29	35	64	170	439	23
55°	20	24	31	69	82	19
65°	15	15	16	26	24	14
75°	7	7	7	9	9	8
85°	2	2	2	2	0	1
90°	0	0	0	0	0	



TEST NUMBER: P977167

CATALOG NUMBER: GRZ-10L-940-17x75-X-UNV-STD-1F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1844.4	1844.4	1844.4	1844.4	1844.4
1°	1851.7	1848.1	1831.7	1857.2	1862.6
2°	1727.8	1775.2	1784.3	1815.3	1824.4
3°	1660.3	1693.2	1740.5	1817.1	1860.8
4°	1527.3	1563.7	1674.9	1798.9	1860.8
5°	1354.2	1432.5	1558.3	1773.3	1857.2
6°	1193.8	1284.9	1447.1	1738.7	1853.5
7°	1013.3	1131.8	1363.3	1674.9	1862.6
8°	898.5	986.0	1239.3	1625.7	1804.3
9°	789.2	873.0	1120.9	1552.8	1835.3
10°	701.7	761.8	1026.1	1512.7	1829.8
12.5°	493.9	554.1	796.5	1370.6	1820.7
15°	360.9	415.5	617.8	1213.8	1820.7
17.5°	278.9	320.8	515.8	1080.8	1809.8
20°	202.3	249.7	431.9	958.7	1767.9
22.5°	153.1	195.0	364.5	849.3	1786.1
25°	122.1	151.3	302.5	749.1	1729.6
27.5°	94.8	120.3	255.2	654.3	1720.5
30°	72.9	94.8	215.1	568.6	1653.1
32.5°	58.3	76.5	178.6	488.4	1530.9
35°	47.4	65.6	149.4	415.5	1385.1
37.5°	41.9	54.7	120.3	348.1	1146.4
40°	36.5	45.6	98.4	269.7	887.6
42.5°	32.8	40.1	76.5	215.1	648.8
45°	29.2	34.6	63.8	169.5	439.2
47.5°	27.3	32.8	51.0	136.7	284.3
50°	23.7	29.2	41.9	107.5	189.5
52.5°	21.9	25.5	36.5	89.3	122.1
55°	20.0	23.7	31.0	69.3	82.0
57.5°	20.0	21.9	27.3	54.7	58.3
60°	18.2	18.2	23.7	41.9	41.9
62.5°	16.4	16.4	20.0	32.8	32.8
65°	14.6	14.6	16.4	25.5	23.7
67.5°	12.8	12.8	12.8	20.0	20.0
70°	10.9	10.9	10.9	16.4	14.6
72.5°	9.1	9.1	9.1	12.8	10.9
75°	7.3	7.3	7.3	9.1	9.1
77.5°	5.5	5.5	5.5	7.3	5.5
80°	3.6	3.6	3.6	3.6	3.6
82.5°	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)